6-15-1998

# Cobra for white mold suppression

X. B. Yang
*Iowa State University*, xbyang@iastate.edu

Micheal D. Owen
*Iowa State University*, mdowen@iastate.edu

Robert G. Hartzler
*Iowa State University*, hartzler@iastate.edu

# Cobra for white mold suppression

**Abstract**
Many fields planted to soybeans this year had white mold problems in 1996, thus providing inoculum for infestations during the current season. Growers are looking for ways to manage white mold problems and one strategy may be to use a herbicide. Cobra (lactofen) has recently received a supplemental label for suppression of soybean white mold. In this article, we address questions related to using Cobra for white mold suppression.

**Keywords**
Plant Pathology, Agronomy

**Disciplines**
Agricultural Science | Agriculture | Agronomy and Crop Sciences | Plant Pathology


# Cobra for white mold suppression

Many fields planted to soybeans this year had white mold problems in 1996, thus providing inoculum for infestations during the current season. Growers are looking for ways to manage white mold problems and one strategy may be to use a herbicide. Cobra (lactofen) has recently received a supplemental label for suppression of soybean white mold. In this article, we address questions related to using Cobra for white mold suppression.

 [1] **Soybean white mold on stem.**

**About the new label**. You must read the new label if you plan to use Cobra to suppress white mold in soybeans. There are two important considerations on the label: the first is that the recommended application timing for white mold suppression is at or near soybean blooming, and the second is the rate of application (6-12.5 fluid oz/acre). The label also states that the effect of Cobra on soybean white mold is not a fungicidal response but rather one that involves systemic acquired resistance.

**Available research data on using Cobra to suppress white mold**. Cobra has been observed to suppress white mold for years by growers and plant pathologists. In a project funded by soybean check-off dollars, Cobra and chemicals of the same family have been evaluated in fields and laboratories for white mold control. Field tests in the last two years in different states show that 4-6 oz/acre of Cobra applied at R1 growth stage (just blooming) consistently reduced white mold infestation. White mold control was reduced if applied at the V4 (fourth trifoliate) stage. Studies show that Cobra may enhance soybean resistance to white mold. If application is done too early, the suppression of the disease may not be sufficient.

**Effects of Cobra on soybean canopy and yield**. It is known that Cobra can cause leaf burn and may reduce yield with late applications. When used for white mold suppression, yield response to Cobra can be variable, especially if the disease incidence is low or absent. In the white mold project mentioned above, yield increase was consistent in the first-year experiments across states but less consistent for the second-year experiments. Generally, if beans are under stress at application time (flowering, pod fill) any further stress will have a negative impact on yield. This is especially true when white mold is absent. Some of the Wisconsin data demonstrated this when white mold was not actually a problem. As we interpret the situation, if you have white mold, Cobra may offer some protection. If you do not, Cobra can be a problem. The key is knowing that you will have the problem before it shows up. Although there is no white mold forecasting system available, the risk level of this disease can be assessed by a few simple rules that can be found in ISU Extension publication PM-

1731, **Soybean White Mold**. You can order this publication through the ISU Extension Distribution Center [2] by calling 515-294-5247.

**About the surfactant**. Currently, no research data are available to provide guidance as to whether or not to include a surfactant when Cobra is applied for white mold control. In the Cobra supplemental label, a surfactant is listed. In the first two years of the regional white mold research project, treatments without surfactant were not evaluated. However these treatments have been added in 1998 field tests.

To apply Cobra on white mold tolerant varieties. Some people ask about applying Cobra to white-mold-tolerant varieties. Research results on a tolerant variety (NK 1990) showed no yield increase with Cobra. The tolerant variety out-yielded the susceptible one with yield equivalent to that with Cobra application. Use of white-mold-tolerant cultivars can achieve equal or superior effects to that of chemical strategies.

This article originally appeared on page 107 of the IC-480(14) -- June 15, 1998 issue.

---

**Source URL:**
http://www.ipm.iastate.edu/ipm/icm//ipm/icm/1998/6-15-1998/cobra.html

**Links:**
[1] http://www.ipm.iastate.edu/ipm/icm//iswm.html
[2] http://www.exnet.iastate.edu/Pages/pubs/Order.html

IOWA STATE UNIVERSITY
University Extension